

What is claimed is:

1. A filter for an extracorporeal blood circuit comprising:  
a bundle of hollow fibers having an end section encased in a potting material, wherein said end section of potting material has an end surface with open ends of the fibers distributed throughout the end surface, and  
a filter header cap having an inlet connectable to a blood line and an open end sealed around a side surface of the end section of the bundle of hollow fibers.
2. A filter as in claim 1 wherein the inlet is coaxial with the filter.
3. A filter as in claim 1 wherein the end surface includes a rim area of potting material, wherein the rim area is devoid of the open ends of the fibers having a width no greater on average than 0.508 mm.
4. A filter as in claim 1 wherein the end surface includes a rim of potting material devoid of the open ends of the fibers having an average width in a range of 0.025 mm to 0.508 mm.
5. A filter as in claim 1 wherein the end section is an end of a stem of the bundle extending outward from a disk of the potting material.
6. A filter as in claim 5 wherein the disk is fitted into the cap and the cap is mounted on a cylindrical tube housing the bundle.
7. A filter for an extracorporeal blood circuit comprising:  
a bundle of hollow fibers having an end section encased in a potting material, wherein said end section further comprises a stem of fibers and potting material; extending from a disk of the potting material;

an end surface of the end section further comprising open ends of the fibers distributed throughout the end surface including open ends proximate to a perimeter of the end surface,

a filter housing through which extends said bundle;

a filter cap at an end of said housing, wherein the disk of the potting material is sealed to the cap, and

a filter header cap having an inlet connectable to a blood line and an open end sealed around a side of the stem.

8. A filter as in claim 7 wherein the end surface includes a rim of potting material devoid of the open ends of the fibers having an average width in a range of 0.025 mm to 0.508 mm.

9. A filter as in claim 7 wherein the open end of the filter header cap forms an interference fit on the side of the stem.

10. A filter as in claim 9 wherein a diameter of the stem is greater than an inner circumference of the filter header cap which seals against the stem in a range of 0.025 mm to 1.27 mm.

11. A filter as in claim 7 wherein a gap between the end surface and an opposing interior surface of the filter header cap is within a range of 0.381 mm to 1.016 mm.

12. A filter as in claim 7 wherein a diameter of the end surface is no greater than four times an internal passage diameter of the blood line.

13. A filter as in claim 7 wherein the end surface has exposed potting material covering less than 50 percent of a total surface area of the end surface.

14. A filter as in claim 7 wherein a gap between the end surface and an opposing interior of the filter header cap is less than ten percent of a diameter of the end surface.

15. A filter as in claim 7 wherein the filter header cap is sealed to the filter cap.